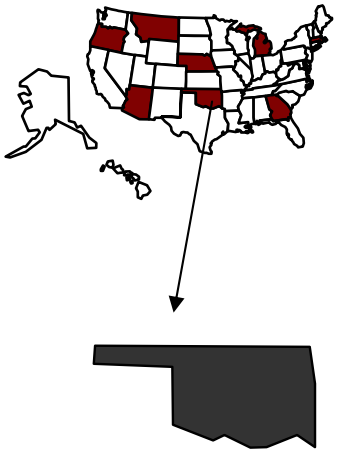

THE HEALTH CARE WORKFORCE IN EIGHT STATES: EDUCATION, PRACTICE AND POLICY

Spring 2004

OKLAHOMA

TABLE OF CONTENTS

The Health Care Workforce in Eight States: Education, Practice and Policy

PROJECT DESCRIPTION

Historically, both federal and state governments have had a role in developing policy to shape the health care workforce. The need for government involvement in this area persists as the private market typically fails to distribute the health workforce to medically underserved and uninsured areas, provide adequate information and analysis on the nature of the workforce, improve the racial and ethnic cultural diversity and cultural competence of the workforce, promote adequate dental health of children, and assess the quality of education and practice.

It is widely agreed that the greatest opportunities for influencing the various environments affecting the health workforce lie within state governments. States are the key actors in shaping these environments, as they are responsible for:

- financing and governing health professions education;
- licensing and regulating health professions practice and private health insurance;
- purchasing services and paying providers under the Medicaid program; and
- designing a variety of subsidy and regulatory programs providing incentives for health professionals to choose certain specialties and practice locations.

Key decision-makers in workforce policy within states and the federal government are eager to learn from each other. This initiative to compile in-depth assessments of the health workforce in 8 states is an important means of insuring that states and the federal government are able to effectively share information on various state workforce data, issues, influences and policies.

Products of this study include individual health workforce assessments for each of the eight states and a single assessment that compares various data and influences across the eight states. In general, each state assessment provides the following:

1) A summary of health workforce data, available resources and a description of the extent the state invests in collecting workforce data. [Part of this information has been provided by the Bureau of Health Professions];
2) A description of various issues and influences affecting the health workforce, including the state's legislative and regulatory history and its current programs, financing and policies affecting health professions education, service placement and reimbursement, planning and monitoring, and licensure/regulation;
3) An assessment of the state's internal capacity and existing strategies for addressing the above workforce issues and influences; and
4) An analysis of the policy implications of the state's current workforce data, issues, capacity and strategies.

The development of the project's data assimilation strategy, content and structure was guided by an expert advisory panel. Members of the advisory panel included both experts in state workforce policy (i.e., workforce planners, researchers and educators) and, more broadly, influential state health policymakers (i.e., state legislative staff, health department officials). The advisory panel has helped to ensure the workforce assessments have an appropriate content and effective format for dissemination and use by both state policymakers and workforce experts/officials.

STUDY METHODOLOGY

Study Purpose and Audience

Key decision-makers in workforce policy within states and the federal government are eager to learn from each other. Because states increasingly are being looked to by the federal government and others as proving grounds for successful health care reform initiatives, new and dynamic mechanisms for sharing innovative and effective state workforce strategies between states and with the federal government must be implemented in a more frequent and far reaching manner. This initiative to compile comprehensive capacity assessments of the health workforce in 8 states is an important means of insuring that states and the federal government are able to effectively share information on various state workforce data, issues and influences.

Each state workforce assessment report is not intended to be voluminous; rather, information is presented in a concise, easy-to-read format that is clearly applicable and easily digestible by busy state policymakers as well as by workforce planners, researchers, educators and regulators.

Selection of States

NCSL, with input from HRSA staff, developed a methodology for identifying and selecting 8 states to assess their health workforce capacity. The methodology included, but was not limited to, using the following criteria:

a. States with limited as well as substantial involvement in one or more of the following areas: statewide health workforce planning, monitoring, policymaking and research;
b. States with presence of unique or especially challenging health workforce concerns or issues requiring policy attention;
c. States with little involvement in assessing health workforce capacity despite the presence of unique or especially challenging health workforce concerns or issues requiring policy attention;
d. Distribution of states across Department of Health and Human Services regions;
e. States with Bureau of Health Professions (BHPr) - supported centers for health workforce research and distribution studies;
f. States with primarily urban and primarily rural health workforce requirements; and
g. States in attendance at BHPr workforce planning workshops or states that generally have interest in workforce modeling.

Collection of Data

NCSL used various means of collecting information for this study. Methods exercised included:

a. Phone and mail interviews with state higher education, professions regulation, and recruitment/retention program officials;
b. Custom data tabulations by national professional trade associations and others (i.e., Quality Resource Systems, Inc.; Johns Hopkins University School of Public Health) with access to national data bases;
c. Tabulations of data from the most recent edition of federal and state government databases (e.g., National Health Service Corps field strength);
d. Site visit interviews with various officials in the eight profile states;
e. Personal phone conversations with other various state and federal government officials;
f. Most recently available secondary data sources from printed and online reports, journal articles, etc.; and
g. Comments and guidance from members of the study's expert advisory panel.

STATE SUMMARY

Oklahoma is a largely rural state with two major urban centers and large proportion of it population of minority or ethnic origin, primarily native American. The proportion of the state's population that lacks health insurance exceeds the national average, while the percent of the population residing in primary care and dental federally-designated health professional shortage areas is much less than the national proportion. The state suffers from an overall shortage as well as maldistribution of physicians, nurses, dentists and dental hygienists in comparison to national averages.

State officials rank state programs that now support health professions education in underserved areas (i.e., Oklahoma's Area Health Education Centers) as having a moderate impact on improving provider recruitment and retention. Moreover, state malpractice insurance subsidies for medical practice in such locations also receive good marks. The state's various scholarship and loan repayment programs for physicians and other health professionals (i.e., Physician Manpower Training Commission) as well report that average retention rates in underserved areas for their recipients exceed 70 percent.

However, anecdotal information also suggests that low Medicaid reimbursement rates are having a worsening impact on Medicaid participation by physicians and dentists, particularly in largely underserved areas of the state. The state's current fiscal crisis continues to plague support for Medicaid and other state health care programs. Budget cuts in recent years have forced reductions in Medicaid reimbursement rates to most providers.

A growing awareness of a shortage of nurses and pharmacists, particularly in rural communities, have helped to increase efforts by the state hospital association to address member health professional recruitment and retention concerns. The state's changing demand for and supply of nurses is not well understood, but there is a growing consensus that a nursing shortage exists in Oklahoma, and, like elsewhere, is largely associated with an insufficient capacity of nurse training programs (associated with shortages of faculty, clinical training opportunities and other resources) to educate more nurses. A significant proportion (10%) of nursing graduates are thought to leave the state to practice upon graduation, and there have been major pressures on hospitals and other nurse employers in the state to recruit more nurses from foreign countries.

The supply and availability of physicians, particularly in rural areas of the state, does not currently appear to be a major policy issue. Of major concern to the state's physicians has been rapidly rising medical malpractice premiums and judgments. A medical tort reform measure passed by the legislature in 2003 and endorsed by the state medical society will place a cap on non-economic damages and establish other tort reforms.

Although there is growing concern that Oklahoma may face an overall shortage of dentists in the near future, oral health experts agree that the state's dental workforce shortage currently is largely a maldistribution problem. Dentist supply in rural areas is becoming particularly acute. Similar to other states, a large number of dentists are nearing retirement and many retiring rural dentists are unable to find someone to take over their practice. Also, rural dentists report having difficulty recruiting hygienists. A 2003 law now allows hygienists to operate with less supervision from a dentist in certain public health settings and long term care facilities.

I. WORKFORCE SUPPLY AND DEMAND

Arguably, it is most important initially to understand the marketplace for a state's health care workforce. How many health professionals are in practice statewide and in medically underserved communities? What are the demographics of the population served? How is health care organized and paid for in the state? This section attempts to answer some of these questions by presenting state-level data collected from various sources.

Table I-a.

POPULATION		OK	U.S.
Total Population (2001)		**3,460,097**	284,796,887
Sex (2000)	% Female	**50.9**	50.9
	% Male	**49.1**	49.1
Age (2000)	% less than 18	**25.9**	25.7
	% 18-64	**60.9**	61.9
	% 65 or over	**13.2**	12.4
% Minority/Ethnic (2002)		**22.5**	30.9
% Metropolitan (2002)		**61.3**	81.3

Sources: U.S. Census Bureau, AARP.

Only sixty-one percent of Oklahoma residents live in metropolitan areas.

Table I-b.

PROFESSION UTILIZATION	OK	U.S.
% Adults who Reported Having Routine Physical Exam Within Past Two Years (1997)	**82.5**	83.2 (Median)
Average # of Retail Prescription Drugs per Resident (2002)	**10.9**	10.6
% Adults who Made Dental Visit in Preceding Year by Annual Family Income (1999):		
Less than $15,000	**41**	
$15,000 - $34,999	**57**	
$ 35,000 or more	**77**	

Sources: CDC, AARP, GAO.

Less than half of Oklahoma adults with incomes below $15,000 annually made a dental visit in the preceding year.

Table I-c.

ACCESS TO CARE		OK	U.S.
% Non-elderly (under age 65) Without Health Insurance	2000-2001	**22**	17
	1999-2000	**21**	16
% Children Without Health Insurance	2000-2001	**17**	12
	1999-2000	**17**	12
% Not Obtaining Health Care Due to Cost (2000)		**9.9**	9.9
% Living in Primary Care HPSA (2003)		**16.3**	21.3
# Practitioners Needed to Remove Primary Care HPSA Designation (2003)		**62**	--
% Living in Dental HPSA (2003)		**11.0**	14.7
# Practitioners Needed to Remove Dental HPSA Designation (2003)		**27**	--

HPSA = Health Professional Shortage Area
Sources: KFF, AARP, BPHC-DSD.

Oklahoma has less people living in primary care and dental HPSAs than the U.S. as a whole.

Table I-d.

PROFESSIONS SUPPLY				
Profession		**# Active Practitioners**	**# Active Practitioners per 100,000 Population**	
			OK	**U.S.**
Physicians (1998)		**5,316**	**159.2**	198
Physician Assistants (1999)		**425**	**12.7**	10.4
Nurses	RNs (2000)	**27,083**	**635**	782
	LPNs (1998)	**12,460**	**373.1**	249.3
	CNMs (2000)	**23**	**0.7**	2.1
	NPs (1998)	**377**	**11.3**	26.3
	CRNAs (1997)	**225**	**6.8**	8.6
Pharmacists (1998)		**1,960**	**58.7**	65.9
Dentists (1998)		**1,323**	**39.6**	48.4
Dental Hygienists (1998)		**970**	**29.0**	52.1
% Physicians Practicing Primary Care			28.0 (30.0 U.S.)	
% Registered Nurses Employed in Nursing			80.9 (81.7 U.S.)	
% of MDs Who Are International Medical Graduates (IMGs)			16.0 (24.0 U.S.)	

RN= Registered Nurse, LPN= Licensed Practical Nurse, CNM= Certified Nurse Midwife, NP= Nurse Practitioner
CRNA= Certified Registered Nurse Anesthetist

Source: HRSA-BHPr.

Only sixteen percent of physicians in Oklahoma are international medical graduates.

Table I-e.

NATIONAL HEALTH SERVICE CORPS (NHSC) FIELD STRENGTH			
Total Field Strength (FY 2003) * Includes mental/behavioral health officials	% in Urban Areas	% in Rural Areas	# Per 10,000 Population Living in HPSAs
40	**33**	**67**	**0.71** (0.49 U.S.)

Field Strength by Profession	
Physicians	**14**
Nurses	**1**
Physician Assistants	**7**
Dentists/Hygienists	**5**

HPSA= Health Professional Shortage Area

Source: BPHC-NHSC.

Oklahoma has more National Health Service Corps professionals than the national average.

Table I-f.

MANAGED CARE			
Penetration Rate of Commercial and Medicaid HMOs (as % of total population), 2000		**OK**	**U.S.**
		13.9	28.1
Profession	MCOs required by state to include profession on their provider panel*	Profession allowed by state to serve as primary care provider in MCOs	Profession allowed by state to coordinate primary care as part of a standing referral
Physicians	**No**	**Yes**	**No**
Nurses	**No**	**No**	**No**
Pharmacies	**No**	**No**	**No**
Dentists	**No**	**No**	**No**
State requires certain individuals enrolled in MCOs to have direct access to certain specialty (OB/GYN, etc.) providers.			**No**
State requires certain individuals enrolled in MCOs to receive a standing referral to a specialist (OB/GYN, etc.).			**Yes**

MCOs = Managed Care Organizations HMOs = Health Maintenance Organizations OB/GYN = Obstetrician/Gynecologist
* This requirement does not preclude MCOs from including additional professions on their provider panels.

Sources: HPTS, AARP.

Only thirteen percent of Oklahoma residents receive their health care from HMOs.

Table I-g.

REIMBURSEMENT OF SERVICES					
	Profession	% Active Practitioners Enrolled	% Enrolled Receiving Annual Payments Greater Than $10,000[1]	Increase of 10% or More in Overall Payment Rates 1998-2003	Bonus or Special Payment Rate for Practice in Rural or Medically Underserved Area
Medicaid	Physicians	*	**6.5**	**Yes**	**No**
	NPs	*	**3.0**	**Yes**	**No**
	Dentists	**18**	**40.0**	**Yes**	**No**
	# of Enrolled Pharmacies				**1,138**
	% Change in Physician Fees (All Services), 1993-1998				**-3.46**
	Recent State-Mandated Payment Increases				**Yes** (various professions)
Medicare	# Active Practitioners Enrolled (2000)				**4,992**
	% Practitioners who Accept Fee as Full Payment (2003)				**94.4**

[1] Generally seen as an indicator of significant participation in the Medicaid program.
[2] Denominator number from HRSA State Health Workforce Profile, December 2000.
* Numerator data for physicians and nurse practitioners from state Medicaid agencies were unusable: many professionals were apparently double-counted, perhaps due to varying participation in different health plans.

Sources: State Medicaid programs, Norton and Zuckerman "Trends", HPTS, AARP.

Medicaid physician fees in Oklahoma declined from 1993 to 1998.

II. HEALTH PROFESSIONS EDUCATION

State efforts to help ensure an adequate supply of health professionals can be understood in part by examining data on the state's health professions education programs–counts of recent students and graduates, amounts of state resources invested in education, and other factors. State officials can gauge how well these providers reflect the state's population by also examining how many students and graduates are state residents or minorities. Knowing to what extent states are also investing in primary care education and how many medical school graduates remain in-state to complete residencies in family medicine is also important.

Table II-a.

UNDERGRADUATE MEDICAL EDUCATION			
# of Medical Schools *(Allopathic and Osteopathic)*	**2**	Public Schools	**2**
		Private Schools	**0**
		Osteopathic Schools	**1**
# of Medical Students *(Allopathic and Osteopathic)*	1998-1999	**939**	
	2000-2001	**936**	
# Medical Students per 100,000 Population[1]	1998-1999	**27.1**	
	2000-2001	**27.0**	
% Newly Entering Students (*Allopathic)* who are State Residents, 2002-2003		**95.8**	
Requirement for Students in Some/All Medical Schools to Complete a *Primary Care Clerkship*	By the State	**No**	
	By Majority of Schools	**Yes**	
# of Medical School Graduates *(Allopathic and Osteopathic)*	1998	**229**	
	2001	**230**	
# Medical School Graduates per 100,000 Population[1]	1998	**6.6**	
	2001	**6.6**	
% Graduates *(Allopathic)* who are Underrepresented Minorities, 1994-1998		**10.47** (10.5 U.S.)	
% 1987-1993 Medical School Graduates *(Allopathic)* Entering Generalist Specialties		**28.6** (26.7 U.S.)	
State Appropriations to Medical Schools *(Allopathic and Osteopathic)*, 2000-2001	Total	**$58.3 million**	
	Per Student	**$62,286**	

[1] Denominator number is state population from 2000 U.S. Census.

Sources: AAMC, AAMC Institutional Goals Ranking Report, AACOM, Barzansky et al. "Educational Programs", State higher education coordinating boards.

Over ninety-five percent of newly entering medical students are Oklahoma residents.

Table II-b.

GRADUATE MEDICAL EDUCATION (GME)		
# of Residency Programs *(Allopathic and Osteopathic)*, 2002-2003[1]		**61**
# of Physician Residents *(Allopathic and Osteopathic)*, 2002-2003[1]		**656**
# Residents Per 100,000 Population, 2002-2003		**19**
% Allopathic Residents from In-State Medical School, 2000-2001		**33.5**
% Residents who are International[2] Medical Graduates, 2000-2001		**25.6**
Requirement to Offer Some or All Residents a *Rural Rotation*	By the State	**No**
	By Most Primary Care Residencies	**No**
Medicaid Payments for Graduate Medical Education, 2002[3]		**$108.3 million**
	Payments as % of Total Medicaid Hospital Expenditures	**30.0** (8.0 U. S.)
	Payments Made Directly to Teaching Programs Under Capitated Managed Care	**Yes**
	Payments Linked to State Workforce Goals/ Goals of Improved Accountability	**Yes**
Medicare Payments for Graduate Medical Education, 1998[3]		**$34.0 million**

[1] Includes estimated number of osteopathic residencies/residents not accredited by the Accreditation Council for Graduate Medical Education.
[2] Does not include residents from Canada.
[3] Explicit payments for both direct and indirect GME cost.

Sources: AMA, AMA State-level Data, AACOM, State higher education coordinating boards, Henderson "Funding", Oliver et al. "State Variations."

One-third of allopathic residents in Oklahoma are from in-state medical schools.

Table II-c.

FAMILY MEDICINE RESIDENCY TRAINING			
# of Residency Programs, 1999-2000	**8**	# Residencies Located in Inner City	**5**
		# Residencies Offering Rural Fellowships or Training Tracks	**0**
# of Family Medicine Residents, 2001-2002			**23**
# Family Medicine Residents per 100,000 Population, 2001-2002[1]			**0.7**
% Graduates *(from state's Allopathic and Osteopathic medical schools)* who were First Year Residents in Family Medicine, 1995-2001			**19.1**
% Graduates *(from state's Allopathic medical schools)* Choosing a Family Medicine Residency Program Who Entered an In-State Family Medicine Residency, 1995-2001			**49.4**

[1] Denominator number is state population from 2000 U.S. Census.

Sources: AAFP, AAFP State Legislation, Kahn et al., Pugno et al. and Schmittling et al. "Entry of U.S. Medical School Graduates".

Half of all Oklahoma medical school graduates who chose a family medicine residency program entered an in-state family medicine program.

Table II-d.

NURSING EDUCATION				
# of Nursing Schools	**45**	Public Schools		**25**
		Private Schools		**20**
# of Nursing Students[1]	**3,181**	# Associate Degree, 2001-2002		**1,770**
		# Baccalaureate Degree	2001-2002	**1,047**
			2002-2003	**1,165**
		# Masters Degree	2001-2002	**208**
			2002-2003	**239**
		# Doctoral Degree	2001-2002	**0**
			2002-2003	**0**
	# Per 100,000 population[2]			**91.9**
# of Nursing School Graduates[1]	**1,266**	# Associate Degree, 2002		**680**
		# Baccalaureate Degree	2001	**465**
			2002	**534**
		# Masters Degree	2001	**58**
			2002	**52**
		# Doctoral Degree	2001	**0**
			2002	**0**
	# Per 100,000 population[2]			**36.6**

[1] Annual figure for Associate, Baccalaureate, Masters and Doctoral students/graduates for most recent years available.

[2] Denominator number is the state population from the 2000 U.S. Census.

Sources: NLN, AACN, State higher education coordinating boards.

Enrollments for baccalaureate and master's degree nursing students in Oklahoma rose from 2001 to 2002.

Table II-e.

PHARMACY EDUCATION			
# of Pharmacy Schools	**2**	Public Schools	**2**
		Private Schools	**0**
# of Pharmacy Students, 2002-2003	**644**	# Baccalaureate Degree	**0**
		# Doctoral Degree *(PharmD)*	**644**
	# Per 100,000 population*		**18.6**
# of Pharmacy Graduates, 2001-2002	**128**	# Baccalaureate Degree	**9**
		# Doctoral Degree *(PharmD)*	**119**
	# Per 100,000 population*		**3.4**

***** Denominator number is state population from 2000 U.S. Census.

Source: AACP.

Table II-f.

PHYSICIAN ASSISTANT EDUCATION			
# of Physician Assistant Training Programs, 2002-2003	**1**	Public Schools	**1**
		Private Schools	**0**
# of Physician Assistant Program Students, 2002-2003			**100**
# Physician Assistant Program Students per 100,000 Population, 2002-2003			**2.89**
# of Physician Assistant Program Graduates, 2003			**51**
# Physician Assistant Program Graduates per 100,000 Population, 2003[1]			**1.47**

[1] Denominator number is state population from 2000 U.S. Census.

Sources: APAP, APAP Annual Report.

Table II-g.

DENTAL EDUCATION			
# of Dental Schools	**1**	Public Schools	**1**
		Private Schools	**0**
# of Dental Students, 2000-2001	**214**		
# Dental Students per 100,000 Population, 2000-2001*	**6.2**		
# of Dental Graduates, 1999-2000	**55**		
# Dental Graduates per 100,000 Population, 2000*	**1.6**		
State Appropriations to Dental Schools, 1997	Per Student: **$17,968**		
	As % of Total Revenue: **53.0** (31.6 U.S.)		

* Denominator number is state population from 2000 U.S. Census.

Source: ADA.

Table II-h.

DENTAL HYGIENE EDUCATION			
# of Dental Hygiene Training Programs	**3**	Public Schools	**3**
		Private Schools	**0**
# of Dental Hygiene Program Students, 2001-2002	**99**		
# Dental Hygiene Program Students per 100,000 Population*	**2.9**		
# of Dental Hygiene Program Graduates, 2000-2001	**46**		
# Dental Hygiene Program Graduates per 100,000 Population*	**1.3**		

* Denominator number is state population from 2000 U.S. Census.

Sources: ADHA, AMA Health Professions.

III. PHYSICIAN PRACTICE LOCATION

The following tables examine in-state physician practice location from two different vantage points: (1) of all physicians who were trained (went to medical school or received their most recent GME training) in the state between 1975 and 1995, and (2) of all physicians who are now practicing in the state, regardless of where they were trained. Complied from the American Medical Association's 1999 Physician Masterfile by Quality Resource Systems, Inc., the data importantly illustrates to what extent physician graduates practice in many of the state's small towns, using the rural-urban continuum developed by the U.S. Department of Agriculture.

PRACTICE LOCATION (URBAN/ RURAL) OF PHYSICIANS WHO RECEIVED THEIR MEDICAL SCHOOL TRAINING IN OKLAHOMA BETWEEN 1975 AND 1995.

Table III-a.

OKLAHOMA		
Number of physicians who were trained in OK and who are now practicing in OK **as a percentage of all physicians practicing in OK**.		**45.40**
Number of physicians who were trained in OK and are practicing in OK, **by practice location** (metro code[1]), **as a percentage of all physicians practicing in OK**.	#00	0.00
	#01	0.00
	#02	46.56
	#03	40.74
	#04	52.11
	#05	34.48
	#06	42.18
	#07	34.68
	#08	0.00
	#09	28.57
Number of physicians who were trained in OK and who are now practicing in OK **as a percentage of all physicians who were trained in OK**.		**43.77**
Number of physicians who were trained in OK and are practicing in OK, **by practice location** (metro code[1]), **as a percentage of all physicians trained in OK**.	#00	0.00
	#01	0.00
	#02	70.30
	#03	20.75
	#04	58.93
	#05	27.52
	#06	67.94
	#07	40.19
	#08	0.00
	#09	33.33

[1] 1995 Rural/Urban Continuum Codes for Metro and Nonmetro Counties. Margaret A. Butler and Calvin L. Beale. Agriculture and Rural Economy Division, Economic Research Service, U.S. Department of Agriculture.

Codes # 00-03 indicate metropolitan counties:
00: Central counties of metro areas of 1 million or more
01: Fringe counties of metro areas of 1 million or more
02: Counties with metro areas of 250,000 - 1 million
03: Counties in metro areas of less than 250,000
Codes # 04-09 indicate non-metropolitan counties:
04: Urban population of 20,000 or more, adjacent to metro area
05: Urban population of 20,000 or more, not adjacent to metro area
06: Urban population of 2,500-19,999, adjacent to metro area
07: Urban population of 2,500-19,999, not adjacent to metro area
08: Completely rural (no place w population > 2,500), adjacent to metro area
09: Completely rural (no place w population > 2,500), not adjacent to metro area
NA: Not Applicable; no counties in the state are in the R/U Continuum Code.

PRACTICE LOCATION (URBAN/ RURAL) OF PHYSICIANS WHO RECEIVED THEIR MOST RECENT GME TRAINING IN OKLAHOMA BETWEEN 1978 AND 1998.

Table III-b.

OKLAHOMA		
Number of physicians who received their most recent GME training in OK and who are now practicing in OK **as a percentage of all physicians practicing in OK**.		**46.45**
Number of physicians who received their most recent GME training in OK and are practicing in OK, **by practice location** (metro code[1]), **as a percentage of all physicians practicing in OK**.	#00	0.00
	#01	0.00
	#02	50.45
	#03	30.95
	#04	40.63
	#05	31.52
	#06	37.02
	#07	34.72
	#08	0.00
	#09	23.08
Number of physicians who received their most recent GME training in OK and who are now practicing in OK **as a percentage of all physicians who were trained in OK**.		**51.28**
Number of physicians who received their most recent GME training in OK and are practicing in OK, **by practice location** (metro code[1]), **as a percentage of all physicians trained in OK**.	#00	0.00
	#01	0.00
	#02	76.26
	#03	19.06
	#04	56.93
	#05	25.44
	#06	66.96
	#07	43.48
	#08	0.00
	#09	27.27

[1] 1995 Rural/Urban Continuum Codes for Metro and Nonmetro Counties. Margaret A. Butler and Calvin L. Beale. Agriculture and Rural Economy Division, Economic Research Service, U.S. Department of Agriculture.

Codes # 00-03 indicate metropolitan counties:

00: Central counties of metro areas of 1 million or more
01: Fringe counties of metro areas of 1 million or more
02: Counties with metro areas of 250,000 - 1 million
03: Counties in metro areas of less than 250,000

Codes # 04-09 indicate non-metropolitan counties:

04: Urban population of 20,000 or more, adjacent to metro area
05: Urban population of 20,000 or more, not adjacent to metro area
06: Urban population of 2,500-19,999, adjacent to metro area
07: Urban population of 2,500-19,999, not adjacent to metro area
08: Completely rural (no place w population > 2,500), adjacent to metro area
09: Completely rural (no place w population > 2,500), not adjacent to metro area

NA: Not Applicable; no counties in the state are in the R/U Continuum Code.

IV. LICENSURE AND REGULATION OF PRACTICE

States are responsible for regulating the practice of health professions by licensing each provider, determining the scope of practice of each provider type and developing practice guidelines for each profession. The tables below illustrate the licensure requirements for each of the health professions covered in this study as well as additional information on recent expansions in scope of practice or other novel regulatory measures taken by the state.

Table IV-a.

PHYSICIANS	
LICENSURE REQUIREMENTS	Must have proof of graduation from an approved medical school and valid degree; have completed twelve months of post-graduate medical training; and have passed an examination.
LICENSURE REQUIREMENTS: *INTERSTATE TELE-CONSULTATION*	**Full licensure.** The only exception will be the rendering of emergency advice or opinion or when the physician accepts or expects no compensation.
STATE MANDATES INDIVIDUAL PROFESSION PROFILES TO BE PUBLICLY ACCESSIBLE	**No.**

Sources: State licensing board, HPTS.

Table IV-b.

PHYSICIAN ASSISTANTS	
LICENSURE REQUIREMENTS	Must have graduated from approved physician assistant program and passed the National Commission on Certification of Physician Assistants (NCCPA) Exam.
RECENT STATE MANDATED EXPANSIONS IN SCOPE OF PRACTICE	*Prescriptive Authority:* Physician Assistants can prescribe only schedule III-V medications from a board formulary. *Physician Supervision:* Physician not required to be physically present when, nor specifically consulted before, PA performs delegated task. Board approval required for PA utilization in remote site.

Source: State licensing board.

Table IV-c.

NURSES	
LICENSURE REQUIREMENTS	**Registered Nurses (RNs):** Have completed a Board-approved registered nursing education program and have passed the NCLEX-RN or State Board Test Pool Examination. **Advanced Practice Nurses (APNs):** Must have a current license to practice as a RN in Oklahoma; have completed formal education program approved by the Board; and have certification from a national certifying body recognized by the board. **Licensed Practical Nurses (LPNs):** Have completed a Board-approved practical nursing education program and have passed the NCLEX-PN or State Board Test Pool Examination.
LICENSURE REQUIREMENTS: *FOREIGN-TRAINED NURSES*	Must have proof of graduation from a government-approved school of nursing; have completed formal courses; have proof of licensure in country of graduation demonstrate competence in oral and written English by completing the Commission on Graduates of Foreign Nursing Schools Exam and the Test of English as a Foreign language; and pass the licensing examination of the Oklahoma Board of Nursing.
LICENSURE REQUIREMENTS: *INTERSTATE TELE-CONSULTATION*	**None.** State does not currently participate in interstate licensure compact developed by National Council of State Boards of Nursing.
RECENT STATE MANDATED EXPANSIONS IN SCOPE OF PRACTICE	*PRESCRIPTIVE AUTHORITY* CNMs and NPs can prescribe Schedule III-V. Per exclusionary formulary under supervision. CRNAs have the option to apply for the authority to select obtain and administer schedule III-V and legend drugs - subject to an inclusionary formulary under supervision. *PHYSICIAN SUPERVISION* CRNAs must have supervising physician on premises. NPs must have a written practice agreement to prescribe controlled substances.
RECENT STATE REQUIREMENTS TO IMPROVE WORKING CONDITIONS IN CERTAIN INSTITUTIONS	**None.**
STATE MANDATES INDIVIDUAL PROFESSION PROFILES TO BE PUBLICLY ACCESSIBLE	**No.**

Sources: State licensing board, AANA, ACNM, Pearson "Annual Legislative Update", HPTS.

Table IV-d.

DENTISTS	
LICENSURE REQUIREMENTS	Must be 21 years of age, have graduated from an accredited school of dentistry and passed an examination.
LICENSURE REQUIREMENTS: *INTERSTATE TELE-CONSULTATION*	**Full License.**

Source: State licensing board.

Table IV-e.

PHARMACISTS	
LICENSURE REQUIREMENTS	Must graduate from an approved school of pharmacy, must pass the NAPLEX and the Oklahoma Jurisprudence Examination.
RECENT STATE MANDATED EXPANSIONS IN SCOPE OF PRACTICE	Allowed to administer immunizations.
STATE MANDATES INDIVIDUAL PROFESSION PROFILES TO BE PUBLICLY ACCESSIBLE	**No.**

Source: State licensing board.

Table IV-f.

DENTAL HYGIENISTS	
LICENSURE REQUIREMENTS	Must be 18 years of age, have graduated from an approved dental hygiene program, and passed an examination.
RECENT STATE MANDATED EXPANSIONS IN SCOPE OF PRACTICE	*PRESCRIPTIVE AUTHORITY* No, but dental hygienists may administer local anesthesia and nitrous oxide under supervision of a licensed dentist. *DENTIST SUPERVISION* Hygienists must practice under supervision of a licensed dentist.

Source: State licensing board, ADHA.

Glossary of Acronyms

CNM: Certified nurse midwife.

CRNA: Certified registered nurse anesthetist.

DEA: Drug Enforcement Agency.

HPSA: Health Professional Shortage Area

NCLEX: National Council Licensure Examination, administered by the National Council of State Boards of Nursing.

NP: Nurse practitioner.

RDHAP: Registered dental hygienist in alternative practice.

V. IMPROVING THE PRACTICE ENVIRONMENT

States have the challenge of not only helping to create an adequate supply of health professionals in the state, but also ensuring that those health professionals are distributed evenly throughout the state. Various programs and incentives are used by states to encourage providers to practice in rural and other underserved areas. The tables in this section describe Oklahoma's programs as well as the perceived effectiveness of these programs.

RECRUITMENT/ RETENTION INITIATIVES

Table V-a.

INITIATIVE	In Use	Perceived or Known Impact (1= high, 5= low)	Health Professions Affected					
			Physicians	Nurses	Pharmacists	Dentists	Dental Hygienists	Physician Assistants
FOCUSED ADMISSIONS / RECRUITMENT OF STUDENTS FROM RURAL OR UNDERSERVED AREAS	**No**							
SUPPORT FOR HEALTH PROFESSIONS EDUCATION (stipends, preceptorships) IN UNDERSERVED AREAS	**Yes**	**2**	**X**	**X**				
RECRUITMENT / PLACEMENT PROGRAMS FOR HEALTH PROFESSIONALS	**Yes**	**3**	**X**	**X**				
PRACTICE DEVELOPMENT SUBSIDIES (i.e., start-up grants)	**Yes**	**3**	**X**					
MALPRACTICE PREMIUM SUBSIDIES	**Yes**	**2**	**X**	**X**				
TAX CREDITS FOR RURAL / UNDERSERVED AREA PRACTICE	**No**							
PROVIDING SUBSTITUTE PHYSICIANS (*locum tenens* support)	**No**							
MALPRACTICE IMMUNITY FOR PROVIDING VOLUNTARY OR FREE CARE	**No**							
PAYMENT BONUSES / OTHER INCENTIVES BY MEDICAID OR OTHER INSURANCE CARRIERS	**No**							
MEDICAID REIMBURSEMENT OF TELEMEDICINE	**No**							

Source: State health officials.

Oklahoma employs various recruitment and retention initiatives for nurses and physicians with moderate success.

LOAN REPAYMENT/ SCHOLARSHIP PROGRAMS *

Table V-b.

Program Type	Number of Programs	Number of Annual Participants	Average Retention Rate	Eligible Health Professions					
				Physicians	Nurses	Pharmacists	Dentists	Dental Hygienists	Physician Assistants
LOAN REPAYMENT	2	10-12	71%	X	X	X	X	X	X
SCHOLARSHIP	3	350	78%	X					

* Includes only state-funded programs which require a service obligation in an underserved area. (NHSC state loan repayment programs are included since the state provides funding.)

Source: State health officials.

WORKFORCE PLANNING ACTIVITIES*

Table V-c.

ACTIVITY	In Use	Health Professions Affected					
		Physicians	Nurses	Pharmacists	Dentists	Dental Hygienists	Physician Assistants
COLLECTION / ANALYSIS OF PROFESSIONS SUPPLY DATA: FROM *PRIMARY* SOURCES (e.g., licensure renewal process; other survey research)	Yes	X	X				
FROM *SECONDARY* SOURCES (e.g., state-based professional trade associations)	Yes	X	X				
PRODUCTION OF RECENT STUDIES OR REPORTS THAT DOCUMENT / EVALUATE THE SUPPLY, DISTRIBUTION, EDUCATION OR REGULATION OF HEALTH PROFESSIONS	Yes	X	X				
RECENT REGULATORY ACTIONS INTENDED TO REQUIRE OR ENCOURAGE COORDINATION OF POLICIES AND DATA COLLECTION AMONG HEALTH PROFESSIONS GROUPS OR LICENSING BOARDS	No						

* One state health official supplied these responses. Therefore, data may be limited and may not accurately reflect all current workforce-planning activities in the state.

Oklahoma collects supply data and produces studies and evaluations for physicians and nurses.

VI. EXEMPLARY WORKFORCE LEGISLATION, PROGRAMS AND STUDIES

The following abstracts describe several of Oklahoma's recent endeavors to understand and describe the status of the state's current health care workforce.

Legislation and Programs

H-2162 (2002)
This law establishes a Nursing Workforce Task Force to: 1) Examine specific Oklahoma studies relating to the nursing shortage; 2) Examine national studies relating to the nursing shortage; 3) Identify strategies to enhance recruitment and retention of licensed nurses in the workforce; 4) Identify strategies to recruit and retain qualified nursing faculty for nursing education programs; 5) Identify workforce data needed to accurately reflect the supply of and demand for licensed nurses; 6) Identify best practice retention models within the employment environment; 7) Identify the roles and responsibilities of private and public organizations in addressing nursing workforce shortage issues; and 8) Investigate and recommend possible funding sources to implement the recommendations.

H-1767 (1999)
This law authorizes the State Department of Health to award one or more competitive grants to public hospitals or health care facilities for programs which deliver medical and other health care services through a telemedicine system. The goals of the legislation are to: 1) Empower rural health facilities; 2) Expand the range of services to rural areas; 3) Provide greater access to patients in rural areas; 4) Reduce the number of patient transfers to urban areas; 5) Enhance the rural economic development; and 6) Reduce the costs of medical care.

Federal Emergency Relief Funds
Oklahoma Health Care Authority, 2003
The Oklahoma Health Care Authority approved this one-time $34 million appropriation to increase Medicaid payment rates for physicians, hospitals, nursing homes, and ambulance services. Under the plan, nursing home rates increase by 7 percent, hospital inpatient rates increase by 5 percent, and evaluation and management services provided by physicians increase to equal 90 percent of the Medicare fee schedule.

Emergency Immunizations
Oklahoma State Board of Pharmacy, 2002
The Oklahoma State Board of Pharmacy declared a state of emergency in September of 2000 in order to make statewide immunizations available in underserved rural areas. The rules make immunizations, as prescribed by a licensed practitioner, available statewide.

Physician Manpower and Training Commission
The Physician Manpower Training Commission was created to enhance medical care in rural and underserved areas of the state by encouraging medical and nursing personnel to practice in those areas. The program accomplishes this goal by administering residency, internship, and scholarship incentive programs for physicians and nurses. Programs administered by the group include, The Oklahoma Rural Medical Education Scholarship Loan Program; The Oklahoma Community Physician Education Scholarship Loan Program; and the Oklahoma Intern-Resident Cost-Sharing Program.

Studies

Physician Practice Opportunities
Physician Manpower and Training Commission, 2002
This report looks at areas in the state where there are opportunities for physicians to practice. The report indexes the communities seeking physicians by specialty, lists specific practice opportunities and special practice situations throughout the state, and details various loan programs in the state.

Oklahoma Health Care Authority Annual Report
Oklahoma Health Care Authority, 2003
The annual report of the Oklahoma Health Care Authority outlines the basics of the Medicaid program in Oklahoma and provides data on the state's Medicaid program from the previous year.

VII. POLICY ANALYSIS

Statewide Organizations with Significant Involvement in Health Workforce Development/Analysis

- **Oklahoma Health Care Authority**
- **Physician Manpower Training Commission**
- **Oklahoma Board of Nursing**
- **Oklahoma Hospital Association**

Evidence of Collaboration: Minimal (largely associated with workforce data collection and profession recruitment and retention)

Oklahoma is a largely rural state with two major urban centers and large proportion of it population of minority or ethnic origin, primarily native American. The proportion of the state's population that lacks health insurance exceeds the national average, while the percent of the population residing in primary care and dental federally-designated health professional shortage areas (HPSAs) is much less than the national proportion.

The field strength of National Health Service Corps personnel per 10,000 population residing in Oklahoma's HPSAs was higher than the national ratio in 2003. The state's community health centers in underserved areas voice growing concerns about their difficulty recruiting and retaining physicians and dentists, and to having and adequate supply of area pharmacists. The state suffers from an overall shortage as well as maldistribution of physicians, nurses, dentists and dental hygienists in comparison to national averages.

State officials rank state programs that now support health professions education in underserved areas (i.e., Oklahoma's Area Health Education Centers) as having a moderate impact on improving provider recruitment and retention. Moreover, state malpractice insurance subsidies for medical practice in such locations also receive good marks. The state's various scholarship and loan repayment programs for physicians and other health professionals (i.e., Physician Manpower Training Commission) as well report that average retention rates in underserved areas for their recipients exceed 70 percent. The legislature recently required the Physician Manpower Training Commission to develop outcome-based performance measures for each of its programs.

However, anecdotal information also suggests that low Medicaid reimbursement rates are having a worsening impact on Medicaid participation by physicians and dentists, particularly in largely underserved areas of the state. In 2003, just 18 percent of all practicing dentists were enrolled in Medicaid, and of those, just 40 percent reported receiving annual Medicaid payments from services greater than $10,000. Moreover, a recent suit of the Medicaid program by the a group of pediatricians regarding payment rates is also indicative of the major concerns of participating providers.

The state's current fiscal crisis continues to plague support for Medicaid and other state health care programs. Budget cuts in recent years have forced reductions in Medicaid reimbursement rates to most providers. Moreover, adult dental services were eliminated as a covered item by Medicaid in 2002. Across-the-board cuts to most other state programs has also forced reductions in many health professions training programs and provider recruitment and retention initiatives. There has been recent talk by the governor and legislature of enacting a new tobacco tax increase or creating a state lottery and using some of these revenues to cease several health care cuts and improve health insurance coverage.

A growing awareness of a shortage of nurses and pharmacists, particularly in rural communities, have helped to increase efforts by the state hospital association to address member health professional recruitment and retention concerns. In 2001, the Oklahoma Hospital Association established a workforce task force to study the shortages in hospitals and make recommendations for solutions. Nearly 90 percent of hospitals reported having a shortage of registered nurses. In 2002, the task force was restructured into organized working groups to address recruitment, education and training, retention, and funding issues. Attention is being placed to nursing and allied health profession shortages as well as to the promotion of health careers more broadly to youth.

Medicine

The supply and availability of physicians, particularly in rural areas of the state, does not currently appear to be a major policy issue. Over 90 percent of all newly entering students to the state's two medical schools are state residents and a significant proportion of graduating residents remain in the state to practice.

Of major concern to the state's physicians has been rapidly rising medical malpractice premiums and judgments. A medical tort reform measure passed by the legislature in 2003 and endorsed by the state medical society will place a cap on non-economic damages and establish other tort reforms.

Nursing

The state's changing demand for and supply of nurses is not well understood, but there is a growing consensus that a nursing shortage exists in Oklahoma, and, like elsewhere, is largely associated with an insufficient capacity of nurse training programs (associated with shortages of faculty, clinical training opportunities and other resources) to educate more nurses. Increasing numbers of qualified applicants are being turned away from nursing schools, and many of the state's large number of licensed practical nurses want to extend their education to become registered nurses. However, a significant proportion (10%) of nursing graduates are thought to leave the state to practice upon graduation, and there have been major pressures on hospitals and other nurse employers in the state to recruit more nurses from foreign countries. Oklahoma's nursing shortage generally is one of the worst nationwide.

Proposed efforts to better understand the nursing supply problem include recent calls for the creation of a statewide health professions workforce data center. Uncertainty about how such a center would be funded or where it would be located exist. Two legislative task forces to address concerns of a nursing shortage were created in 2002 to identify strategies to better understand the problem and improve supply.

Dentistry

Although there is growing concern that Oklahoma may face an overall shortage of dentists in the near future, oral health experts agree that the state's dental workforce shortage currently is largely a maldistribution problem. Dentist maldistribution in rural areas is becoming particularly acute. Similar to other states, a large number of dentists are nearing retirement and many retiring rural dentists are unable to find someone to take over their practice. Also, rural dentists report having difficulty recruiting hygienists.

Efforts by the state to address the problem have been sporadic. The dental licensing board has recently surveyed the state's dentists to better understand the supply problem. A 2002 legislative measure to create a dental loan repayment program did not pass largely because of budget problems. A recent Governor-appointed blue ribbon panel to address oral health issues in the state has produced several

legislative proposals. Efforts to expand scope of practice of dental hygienists have been controversial. A 2003 law now allows hygienists to operate with less supervision from a dentist in certain public health settings and long term care facilities.

DATA SOURCES

Workforce Supply and Demand

American Association of Retired Persons, Public Policy Institute (AARP). Reforming the Health Care System: State Profiles 2000. (Washington, DC: 2001).

American Association of Retired Persons, Public Policy Institute (AARP). Reforming the Health Care System: State Profiles 2003. (Washington, DC: 2003).

Bureau of Primary Health Care, Division of Shortage Designation (BPHC-DSD). Selected Statistics on Health Professional Shortage Areas (Bethesda, MD: December 2003).

Bureau of Primary Health Care, National Health Service Corps (BPHC-NHSC). National Health Service Corps Field Strength: Fiscal Year 2003 (Bethesda, MD: January 2004).

Centers for Disease Control, National Center for Chronic Disease Prevention and Health Promotion. National Oral Health Surveillance System, Oral Health Profiles. (Atlanta, GA: 2003)

Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Information and Analysis (HRSA-BHPr). State Health Workforce Profiles (Bethesda, MD: December 2000).

Kaiser Family Foundation, Kaiser Commission on Medicaid and the Uninsured (KFF). Health Insurance Coverage in America: 2002 Data Update (Palo Alto, CA: January 2002).

National Conference of State Legislatures, Health Policy Tracking Service (HPTS).

National Conference of State Legislatures, Health Policy Tracking Service. Primary Health Care and Vulnerable Populations (Washington, DC: January 2000).

Personal conversations with CMS regional office officials.

S. Norton and S. Zuckerman. "Trends in Medicaid Physician Fees" Health Affairs. 19(4), July/August 2000.

State Medicaid programs (data from NCSL survey).

United States General Accounting Office (GAO). Oral Health: Dental Disease is a Chronic Problem Among Low-Income Populations. (Washington, DC: April 2000) GAO/HEHS-00-72.

Health Professions Education

American Academy of Family Physicians (AAFP)

American Academy of Family Physicians. State Legislation and Funding for Family Practice Programs. (Washington, DC).

American Association of Colleges of Nursing (AACN)

American Association of Colleges of Osteopathic Medicine (AACOM). Annual Statistical Report. (Chevy Chase, MD).

American Association of Colleges of Pharmacy (AACP). Profile of Pharmacy Students. (Alexandria, VA).

American Dental Association (ADA)

American Dental Association. 1997-1998 Survey of Predoctoral Dental Educational Institutions. (Washington, DC).

American Dental Hygienist Association (ADHA)

American Medical Association (AMA). Health Professions Career and Education Directory.

American Medical Association. State-level Data for Accredited Graduate Medical Education Programs in the U.S.: 2002-2003. (Washington, DC: 2001)

Association of American Medical Colleges (AAMC)

Association of American Medical Colleges. Institutional Goals Ranking Report. (AAMC website).

Association of Physician Assistant Programs (APAP).

Association of Physician Assistant Programs. Sixteenth Annual Report on Physician Assistant Educational Programs in the United States, 2002-2003. (Loretto, PA: 2001).

Barzansky B. et al., "Educational Programs in U.S. Medical Schools, 2002-2003" JAMA. 290(9), September 3, 2003.

Henderson, T., Funding of Graduate Medical Education by State Medicaid Programs, prepared for the Association of American Medical Colleges, April 1999.

Kahn N. et al., "Entry of U.S. Medical School Graduates into Family Practice Residencies: 1997-1998 and 3-year Summary" Family Medicine. 30(8), September 1998.

Kahn N. et al., "Entry of U.S. Medical School Graduates into Family Practice Residencies: 1996-1997 and 3-year Summary" Family Medicine. 29(8), September 1997.

Kahn N. et al., "Entry of U.S. Medical School Graduates into Family Practice Residencies: 1995-1996 and 3-year Summary" Family Medicine. 28(8), September 1996.

National League for Nursing (NLN)

Oliver T. et al., State Variations in Medicare Payments for Graduate Medical Education in California and Other States, prepared for the California HealthCare Foundation. (Data from the Health Care Financing Administration, compiled by the Congressional Research Service.)

Pugno P. et al.. "Entry of U.S. Medical School Graduates into Family Practice Residencies: 1999-2000 and 3-year Summary" Family Medicine. 32(8), September 2000.

Schmittling G. et al. "Entry of U.S. Medical School Graduates into Family Practice Residencies: 1998-1999 and 3-year Summary" Family Medicine. 31(8), September 1999.

State higher education coordinating board/university board of trustees (data from NCSL survey).

Physician Practice Location

1999 American Medical Association Physician Masterfile. Computations were performed by Quality Resource Systems, Inc. of Fairfax, Virginia.

Licensure and Regulation of Practice

American Association of Nurse Anesthetists (AANA)

American College of Nurse Midwives (ACNM). Direct Entry Midwifery: A Summary of State Laws and Regulations. (Washington, DC: 1999).

American College of Nurse Midwives. Nurse-Midwifery Today: A Handbook of State Laws and Regulations. (Washington, DC: 1999).

American Dental Hygienist Association

National Conference of State Legislatures, Health Policy Tracking Service.

Pearson L., editor. "Annual Legislative Update: How Each State Stands on Legislative Issues Affecting Advanced Nursing Practice" The Nurse Practitioner. 25(1), January 2000.

State licensing boards (NCSL survey).

Improving the Practice Environment

State health officials (NCSL survey).